EXECUTIVE ORDER U-R-034-0298 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY .	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2015	FHZXL.347C30	0.347	Diesel	3000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
	Mechanical Direct In	ection	Pump, Generator			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
kW < 8	Tier 4 Final	STD	N/A	N/A	7.5	8.0	0.60	N/A	N/A	N/A
		CERT			6.4	5.6	0.19			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: That certification to the standards in 13 CCR 2423(b)(1)(A) -Table 1b listed above has been permitted pursuant to Endnote 2 of the same table.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

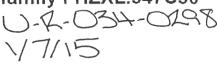
day of January 2015.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Detailed engine models summarization of the engine family FHZXL.347C30

Attachment 1 ST 1





EPA Engine Family	Engine	Engine Code	Max. engine	de-rated	Rated Speed	Maximum	Speed at	Fuel Rate at	Fuel Rate at	Emission
Name	Model		power prior	max. power	(RPM)	Torque	Maximum	Maximum	Rated Speed	Control
			to de-rating	for prduction		(N*m)	Torque	Torque	(mm3/stroke)	System
			(kW)	engine			(RPM)	(mm3/stroke)		
			(,,,,,	(kW)			,,	(,,		
				, ,			2222	15.0	45.0	FILE
FHZXL.347C30	1B30 / V	B30-3600	5,0	4,5	3600	11,9	3600	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3550	5,0	4,5	3550	12,1	3550	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3500	5,0	4,5	3500	12,3	3500	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3450	4,9	4,4	3450	12,2	3450	15,0	15,0	EM / DI
FHZXL.347C30	1B30 / V	B30-3400	4,9	4,4	3400	12,4	3400	15,0	15,0	EM / DI
FHZXL.347C30	1B30 / V	B30-3350	4,9	4,4	3350	12,5	3350	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3300	4,9	4,4	3300	12,7	3300	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3250	4,8	4,3	3250	12,6	3250	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3200	4,8	4,3	3200	12,8	3200	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3150	4,8	4,3	3150 -	13,0	3150	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3100	4,7	4,2	3100	12,9	3100	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-3050	4,7	4,2	3050	13,1	3050	15,0	15,0	EM / DI
FHZXL.347C30	1B30 / V	B30-3000	4,6	4,2	3000	13,4	3000	15,0	15,0	EM / DI
FHZXL.347C30	1B30 / V	B30-2950	4,6	4,1	2950	13,3	2950	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2900	4,6	4,1	2900	13,5	2900	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2850	4,5	4,1	2850	13,7	2850	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2800	4,5	4,0	2800	13,6	2800	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2750	4,4	4,0	2750	13,9	2750	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2700	4,4	3,9	2700	13,8	2700	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2650	4,3	3,9	2650	14,1	2650	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2600	4,2	3,8	2600	14,0	2600	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2550	4,2	3,8	2550	14,2	2550	15,0	15,0	EM/DI
FHZXL.347C30	1B30 / V	B30-2500	4,1	3,7	2500	14,1	2500	15,0	15,0	EM/DI